

White-breasted form of the Wedge-tailed Shearwater, *Puffinus pacificus*, off the Pilbara Coast — On 19 August, 1986 we sailed from Dampier at about 0200 hours for the Montebello Islands, arriving off the south-west end of Trimouille Island at 0930 hours. Just under half the journey (total distance 120 km) was across open sea in daylight. We left the Montebello Islands on 21 August, sailing from the north-eastern end of Trimouille Island at 1600 hours and arriving at Dampier at 0030 hours on 22 August. On the return journey we travelled about 30 km with sufficient daylight for birdwatching.

Throughout our trip the weather was sunny with light, southerly breezes. The sea was smooth with a low, southerly swell.

On the outward journey we noted Wedge-tailed Shearwaters, *Puffinus pacificus* in ones, twos and small groups from daybreak until we were within a kilometre or two of Trimouille Island. We did not count birds but we probably saw at least 200 individuals. All were the common dark-breasted form. We did not notice any particular trend in the direction of their flight.

On the return journey we saw Wedge-tailed Shearwaters almost as soon as we left the shelter of the islands. They were much more numerous than on the outward journey. At any time five and often ten or more birds could be seen simultaneously. Three rafts of up to 100 birds took to the air in front of our boat. Again we did not count birds but we must have seen more than 1 000 individuals. Most of them were flying in a south to south-east direction, that is towards the Pilbara coast.

Among them we observed at least 15 birds of the white-breasted form. On one occasion three white-breasted birds were flying together but the rest were either alone or associated with dark-breasted birds. At first glance the white-breasted birds appeared to be a different species with shorter wings, shorter tails and white underside. However closer examination showed that the darker edging to the wing and darker tail did not contrast with the sea as strongly as did the white parts. The apparent difference in shape was an illusion.

## DISCUSSION

Pizey (1980) states that "20-30% of birds from Shark Bay, WA, are white-breasted as are occasional birds in e. Australia". Storr (1985) quoting Serventy (1972) records about 1 000 pairs of Wedge-tailed Shearwaters breeding on seven small islands in Shark Bay adding that "this is the only dimorphic population in Australian seas, c. 20% of birds being white-breasted . . .". The same author (Storr 1984) described this species as "a very common visitor" to the Pilbara coast arriving in mid August. He recorded breeding on 23 off-shore islands but makes no mention of any records of the white-breasted form in that area. We know of no other records of this form off the Pilbara coast.

Halse and Halse (1988) observed sea-birds off North West Cape for one or two week periods in July or August each year from 1978 to 1986 except 1983. They saw "very large numbers" of Wedge-tailed Shearwaters flying south each year (e.g. 1 000 birds were counted in a two hour period on 8 August 1986). They never saw any white-breasted birds (S.A. Halse pers. comm.). Regular monitoring of Wedge-tailed Shearwater breeding populations on Varanus, Airlie and Serrurier Islands has been undertaken since 1984 as part of the development of the offshore petroleum industry in the area, yet no white-breasted forms have been observed (Tingay and Tingay 1985; Long and Long 1988; Anon. 1988).

We do not know where the white-breasted birds we saw breed. It seems unlikely that in a couple of hours travel over open ocean we would have seen 15 individuals from a population of only about 400 to 600 returning to the distant breeding grounds of Shark Bay. On the other hand if there is a breeding population of this form off the Pilbara coast it seems surprising that none has been recorded before.

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#### REFERENCES

- ANON. 1988. *Harriet Field Development, Triennial Environmental Report*. Bond Corporation (Petroleum Division). Unpublished Report p. 8, and Appendices 1, 2 and 3.
- HALSE, S.A. and HALSE, N.J. 1988. Seabirds and shorebirds at Ningaloo in winter, with comments on Hutton's Shearwater. *West. Aust. Nat.* 17: 97-106.
- LONG, P.J. and LONG, V.L. 1988. *Development of South Pepper and North Herald Fields — Airlie Island terminal*. First Annual Environmental Report, Western Mining Corporation Ltd. Unpublished Report, pp. 84-85.
- PIZZEY, G. 1980. *A Field Guide to the Birds of Australia*. Collins, Sydney. 460 pages.
- STORR, G.M. 1984. Birds of the Pilbara Region, Western Australia. *Rec. West Aust. Mus. Suppl. No. 16*: 1-63.
- STORR, G.M. 1985. Birds of the Gascoyne Region, Western Australia. *Rec. West. Aust. Mus. Suppl. No. 21*: 1-66.
- SERVENTY, D.L. 1972. The Shearwaters of Shark Bay, WA. *Emu* 72: 175.
- TINGAY, A. and TINGAY, S.R. 1985. Wedge-tailed Shearwater (*Puffinus pacificus*) nesting colonies in the Onslow Region of Western Australia. Unpublished report to Maunsell and Partners for Westminco Oil Pty Ltd.

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